International Civil Aviation Organization

FIFTH MEETING OF THE SOUTHEAST ASIA SUB-REGIONAL ADS-B IMPLEMENTATION WORKING GROUP (SEA ADS-B WG/5)

Jakarta, Indonesia, 21 – 22 January 2010

Agenda Item 4: Updating States' activities and issues on regional trials

INSTALLATION OF ADS-B STATION BY SINGAPORE

(Presented by Singapore)

SUMMARY

This paper updates the Working Group on Singapore's ADS-B program.

1. Introduction

1.1 As part of the effort to implement ADS-B in South East Asia, the Civil Aviation Authority of Singapore (CAAS) has installed an ADS-B station and an ADS-B data processor in Singapore on 7 December 2009.

1.2 The installation will:

a) complement the existing surveillance coverage by the Long Range Radar;

b) allow Singapore to perform operational trial using ADS-B data; and

c) complement the coverage of Indonesia and Vietnam via data sharing.

2. Details of the Installation

2.1 The installation is completed on 7 December 2009. The equipment is supplied and installed by Comsoft GmbH.

2.2 The features of the ADS-B Station include:

a) supports ASTERIX Cat 21 versions 0.23, 0.26 and 1.3.

b) coverage of about 290nm based on targets of opportunity.

2.3 The features of the ADS-B data processor includes:

a) processes various versions of ASTERIX cat 21 (i.e. version 0.23, 0.26, 1.3);

b) fusion of ADS-B data from various sources, depending on the required configuration for each user;

c) customized filtered dataset for each user; and

d) specific ASTERIX 21 version for each user.

3. Operational Use

3.1 Currently, the data is mainly used for technical evaluation and familiarization. It is not yet fed into the ATM automation system as the existing automation system is not designed to process ADS-B data.

3.2 CAAS considers purchasing a stand-alone controller position to conduct operational trials, before the commissioning of the new ATM automation system in early 2012.

3.3 The data is ready to be shared with other States.

4. Action by the Meeting

4.1 The Meeting is invited to note the contents of this information paper.

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Fig 1: Coverage based on targets of opportunity

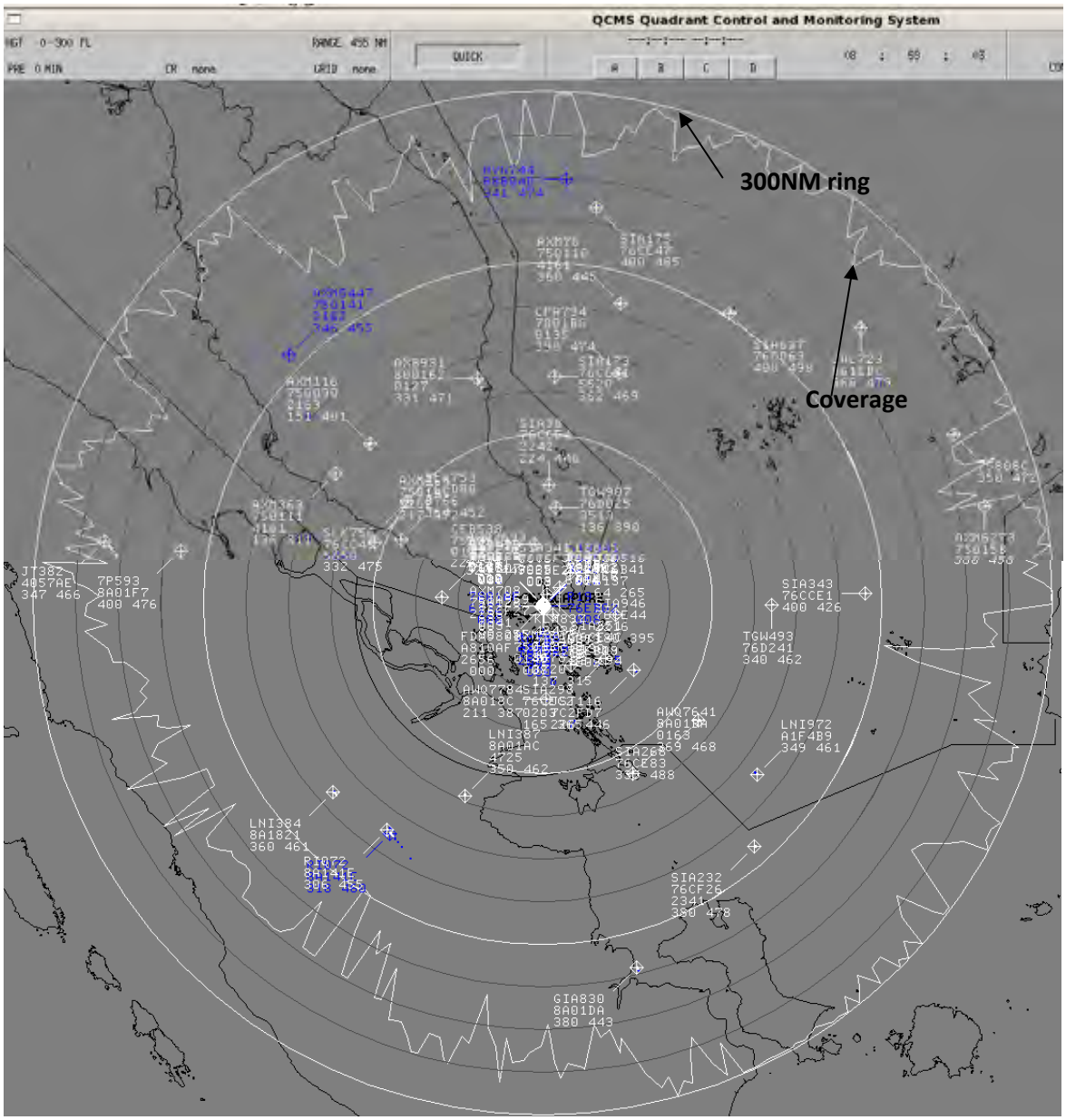

Fig 2: High level processes within the ADS-B data processor